Amendment to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the

application. Claims 1-37 are canceled herein without prejudice. New claims 38-74 are presented

herein. Claims 38-74 remain pending in the application.

Listing of Claims:

1. – 37. (Canceled)

38. (New) A computer-implemented method for generating a deployable Web service archive,

comprising:

selecting a Web service implementation comprising a plurality of Web service operations and a

      plurality of Web service parameters;

generating a first virtual interface to the Web service implementation, the first virtual interface to

      expose a first subset of the Web service operations and Web service parameters;

generating a second virtual interface to the Web service implementation, the second virtual

      interface to expose a second subset of the Web service operations and Web service

      parameters different, at least in part, than the first subset of the Web service operations

      and Web service parameters;

generating a Web service definition for each of the first and second virtual interfaces, each Web

      service definition specifying a protocol-independent communication type for

      communications with the Web service implementation via the first and second virtual

      interfaces, and further specifying a protocol-independent authentication type for

authenticating with the Web service implementation via the first and second virtual interfaces;

generating a Web service deployment descriptor for each Web service definition, each Web service deployment descriptor defining a communication protocol to implement the specified protocol-independent communication type of the corresponding Web service definition, and further defining an authentication protocol to implement the specified protocol-independent authentication type of the corresponding Web service definition; and

generating the deployable Web service archive, the deployable Web service archive comprising the Web service implementation, the first and second virtual interfaces to the Web service implementation, the Web service definition for each of the first and second virtual interfaces, and the Web service deployment descriptor for each Web service definition.

39. (New) The computer-implemented method of claim 38, further comprising:

generating a second Web service definition for the first virtual interface, the second Web service definition specifying a second protocol-independent communication type for communications with the Web service implementation different than the first protocol-independent communication type;

generating a second Web service deployment descriptor for the second Web service definition, the second Web service deployment descriptor defining a second communication protocol to implement the specified protocol-independent communication type of the second Web service definition, and further defining a second authentication protocol to implement the specified protocol-independent authentication type of the second Web service definition, wherein the second communication protocol, or the second

authentication protocol, or both are different than the first communication protocol and first authentication protocol defined by the first Web service deployment descriptor for the first Web service definition associated with the first Virtual interface; and wherein the deployable Web service archive further comprises the second Web service definition and the second Web service deployment descriptor.

40. (New) The computer-implemented method of claim 38, further comprising:

sending the deployable Web service archive to a Web service application server.

41. (New) The computer-implemented method of claim 40, further comprising:

registering the deployable Web service archive with a Web service application server.

42. (New) The computer-implemented method of claim 38, further comprising:

providing the deployable Web service archive to a Universal, Discovery, Description, and Integration (UDDI) Web services directory server.

43. (New) The computer-implemented method of claim 38, wherein the protocol-independent communication type comprises one of:

stateful session communication; or

stateless communication.

44. (New) The computer-implemented method of claim 38, wherein the protocol-independent authentication type comprises one of:

no authentication;

basic authentication; and

strong authentication.

45. (New) The computer-implemented method of claim 38, wherein:

basic authentication comprises implementation of username and password based authentication;

and wherein

strong authentication comprises implementation of client certificate based authentication.

46. (New) The computer-implemented method of claim 38, wherein:

the first subset of the Web service operations and the Web service parameters represent a first

view of the Web service implementation; and wherein

the second subset of the Web service operations and the Web service parameters represent a

second view of the Web service implementation, the second view providing access, at

least in part, to functionality of the Web service implementation hidden from the first

view and lacking access, at least in part, to functionality of the Web service

implementation accessible from the first view.

47. (New) The computer-implemented method of claim 46, further comprising:

publishing the first view of the Web service implementation as a first Web service; and

publishing the second view of the same Web service implementation as a second Web service,

separate from the first Web service.

48. (New) The computer-implemented method of claim 38, wherein the first virtual interface to

expose the first subset of the Web service operations and Web service parameters

comprises:

exposing a parameter using a parameter name different than that specified by the Web service

implementation;

exposing the parameter using a data type different than that specified by the Web service

implementation; and

exposing the parameter using a default value different than that specified by the Web service

implementation.

49. (New) The computer-implemented method of claim 38, wherein generating the deployable

      Web service archive comprises:

packing the Web service implementation, the first and second virtual interfaces to the Web

      service implementation, the Web service definition for each of the first and second virtual

      interfaces, and the Web service deployment descriptor for each Web service definition in

      a deployable container.

50. (New) The computer-implemented method of claim 49, wherein the deployable container

      comprises either a Web services container or an Enterprise Java Bean compatible

      container.

51. (New) A method comprising:

selecting a Web service implementation comprising a plurality of Web service operations and a

      plurality of Web service parameters;

generating a first virtual interface to the Web service implementation, the first virtual interface to

      expose a first subset of the Web service operations and Web service parameters;

generating a second virtual interface to the Web service implementation, the second virtual

      interface to expose a second subset of the Web service operations and Web service

      parameters different, at least in part, than the first subset of the Web service operations

      and Web service parameters;

generating a Web service definition specifying a protocol-independent communication type for

      communications with the Web service implementation via the first and second virtual

      interfaces;

generating a Web service deployment descriptor defining a communication protocol to

      implement the protocol-independent communication type specified by the Web service

definition; and

sending the Web service implementation, the first and second virtual interfaces, the Web service

definition, and the Web service deployment descriptor to a Web service directory server.

52. (New) The method of claim 51, wherein sending the Web service implementation, the first

and second virtual interfaces, the Web service definition, and the Web service

deployment descriptor to the Web service directory server comprises:

packing the Web service implementation, the first and second virtual interfaces, the Web service

definition, and the Web service deployment descriptor in a deployable Web services

archive; and

sending the deployable Web services archive to the Web service directory server.

53. (New) The method of claim 51, wherein:

generating the Web service definition further comprises the Web service definition specifying a

protocol-independent authentication type for authentication with the Web service

implementation via the first and second virtual interfaces; and wherein

generating the Web service deployment descriptor further comprises the Web service

deployment descriptor defining an authentication protocol to implement the protocol-

independent authentication type specified by the Web service definition.

54. (New) The method of claim 53, further comprising:

generating a second Web service definition specifying a protocol-independent communication

type for communication with the Web service implementation via the first virtual

interface and a protocol-independent authentication type for authentication with the Web

service implementation via the first virtual interface, wherein the protocol-independent

communication type and the protocol-independent authentication type of the second Web

service definition are different than the protocol-independent communication type and the protocol-independent authentication type of the first Web service definition.

55. (New) The method of claim 52, further comprising:

registering the deployable Web service archive with a Web service application server.

56. (New) The method of claim 52, further comprising:

providing the deployable Web service archive to a Universal, Discovery, Description, and Integration (UDDI) Web services directory server.

57. (New) The method of claim 51, wherein:

the protocol-independent communication type comprises one of a stateful session communication or a stateless communication; and wherein

the communication protocol comprises one of HyperText Transfer Protocol (HTTP), Simple Object Access Protocol (SOAP) over HTTP, SOAP over File Transfer Protocol (FTP), and SOAP over Simple Mail Transfer Protocol (SMTP).

58. (New) The method of claim 51, wherein:

the first subset of the Web service operations and Web service parameters represent a first view of the Web service implementation; and wherein

the second subset of the Web service operations and Web service parameters represent a second view of the Web service implementation, the second view providing access, at least in part, to functionality of the Web service implementation hidden from the first view and lacking access, at least in part, to functionality of the Web service implementation accessible from the first view.

59. (New) The method of claim 58, further comprising:

publishing the first view of the Web service implementation as a first Web service; and

publishing the second view of the same Web service implementation as a second Web service, separate from the first Web service.

60. (New) An article of manufacture having instructions stored thereon that, when executed by a processor, cause the processor to perform a method comprising:

selecting a Web service implementation comprising a plurality of Web service operations and a plurality of Web service parameters;

generating a first virtual interface to the Web service implementation, the first virtual interface to expose a first subset of the Web service operations and Web service parameters;

generating a second virtual interface to the Web service implementation, the second virtual interface to expose a second subset of the Web service operations and Web service parameters different, at least in part, than the first subset of the Web service operations and Web service parameters;

generating a Web service definition specifying a protocol-independent authentication type for authentication with the Web service implementation via the first and second virtual interfaces;

generating a Web service deployment descriptor defining an authentication protocol to implement the protocol-independent authentication type specified by the Web service definition; and

sending the Web service implementation, the first and second virtual interfaces, the Web service definition, and the Web service deployment descriptor to a Web service directory server.

61. (New) The article of manufacture of claim 60, wherein sending the Web service implementation, the first and second virtual interfaces, the Web service definition, and the Web service deployment descriptor to the Web service directory server comprises:

packing the Web service implementation, the first and second virtual interfaces, the Web service

definition, and the Web service deployment descriptor in a deployable Web services

archive; and

sending the deployable Web services archive to the Web service directory server.

62. (New) The article of manufacture of claim 60, wherein:

generating the Web service definition further comprises the Web service definition specifying a

protocol-independent communication type for communications with the Web service

implementation via the first and second virtual interfaces; and wherein

generating the Web service deployment descriptor further comprises the Web service

deployment descriptor defining a communication protocol to implement the specified

protocol-independent communication type specified by the Web service definition.

63. (New) The article of manufacture of claim 62, further comprising:

generating a second Web service definition specifying a protocol-independent communication

type for communication with the Web service implementation via the first virtual

interface and a protocol-independent authentication type for authentication with the Web

service implementation via the first virtual interface, wherein the protocol-independent

communication type and the protocol-independent authentication type of the second Web

service definition are different than the protocol-independent communication type and the

protocol-independent authentication type of the first Web service definition.

64. (New) The article of manufacture of claim 61, wherein the method further comprises:

registering the deployable Web service archive with a Web service application server.

65. (New) The article of manufacture of claim 61, wherein the method further comprises:

providing the deployable Web service archive to a Universal, Discovery, Description, and

Integration (UDDI) Web services directory server.

66. (New) The article of manufacture of claim 60, wherein:

the protocol-independent authentication type comprises one of no authentication, basic

authentication, and strong authentication; and wherein

the authentication protocol comprises one of HyperText Transfer Protocol (HTTP) with user

name and password, HTTP secured through the Secure Socket Layer (SSL), and X.509

Client Certificates using HTTP secured through SSL.

67. (New) The article of manufacture of claim 60, wherein:

the first subset of the Web service operations and Web service parameters represent a first view

of the Web service implementation; and wherein

the second subset of the Web service operations and Web service parameters represent a second

view of the Web service implementation, the second view providing at least partial access

to functionality of the Web service implementation hidden from the first view and

lacking, at least partially, access to functionality of the Web service implementation

accessible from the first view.

68. (New) The article of manufacture of claim 67, wherein the method further comprises:

publishing the first view of the Web service implementation as a first Web service; and

publishing the second view of the same Web service implementation as a second Web service,

separate from the first Web service.

69. (New) A system comprising:

means for selecting a Web service implementation comprising a plurality of Web service

operations and a plurality of Web service parameters;

means for generating a first virtual interface to the Web service implementation, the first virtual

interface to expose a first subset of the Web service operations and Web service

parameters;

means for generating a second virtual interface to the Web service implementation, the second

virtual interface to expose a second subset of the Web service operations and Web service

parameters different, at least in part, than the first subset of the Web service operations

and Web service parameters;

means for generating a Web service definition for each of the first and second virtual interfaces,

each Web service definition comprising means for specifying a protocol-independent

communication type for communications with the Web service implementation via the

first and second virtual interfaces, and further comprising means for specifying a

protocol-independent authentication type for authenticating with the Web service

implementation via the first and second virtual interfaces;

means for generating a Web service deployment descriptor for each Web service definition, each

Web service deployment descriptor comprising means for defining a communication

protocol to implement the specified protocol-independent communication type of the

corresponding Web service definition, and further comprising means for defining an

authentication protocol to implement the specified protocol-independent authentication

type of the corresponding Web service definition; and

means for generating a deployable Web service archive comprising the Web service

implementation, the first and second virtual interfaces to the Web service

implementation, the Web service definition for each of the first and second virtual

interfaces, and the Web service deployment descriptor for each Web service definition.

70. (New) The system of claim 69, wherein:

the protocol-independent communication type comprises one of stateful session communication

or stateless communication; and wherein

the communication protocol comprises one of HyperText Transfer Protocol (HTTP), Simple

Object Access Protocol (SOAP) over HTTP, SOAP over File Transfer Protocol (FTP),

and SOAP over Simple Mail Transfer Protocol (SMTP).

71. (New) The system of claim 69, wherein:

the protocol-independent authentication type comprises one of no authentication, basic

authentication, and strong authentication; and wherein

the authentication protocol comprises one of HyperText Transfer Protocol (HTTP) with user

name and password, HTTP secured through the Secure Socket Layer (SSL), and X.509

Client Certificates using HTTP secured through SSL.

72. (New) The system of claim 69, wherein:

the first subset of the Web service operations and Web service parameters represent a first view

of the Web service implementation; and wherein

the second subset of the Web service operations and Web service parameters represent a second

view of the Web service implementation, the second view comprising means for

providing access, at least in part, to functionality of the Web service implementation

hidden from the first view and lacking access, at least in part, to functionality of the Web

service implementation accessible from the first view.

73. (New) The computer-implemented method of claim 72, further comprising:

means for publishing the first view of the Web service implementation as a first Web service;

and

means for publishing the second view of the same Web service implementation as a second Web

service, separate from the first Web service.

74. (New) The system of claim 69, wherein the first virtual interface to expose the first subset of

the Web service operations and Web service parameters comprises one or more of:

means for exposing a parameter using a parameter name different than that specified by the Web

service implementation;

means for exposing the parameter using a data type different than that specified by the Web

service implementation; and

means for exposing the parameter using a default value different than that specified by the Web

service implementation.